

## **Purpose and Need/Proposed Action JH Stone Nursery**

### **Herbicide Use For Nursery Operations**

#### **Purpose and Need**

In order to efficiently and effectively produce high quality plant materials for restoring the nation's National Forests and other lands, the J. Herbert Stone Nursery uses a variety of plant culturing methods, including the use of herbicides and other pesticides.

Between 1989 and 1996, three NEPA decisions were documented, allowing for the use of specific fumigants, fungicides, insecticides and herbicides at the nursery. Since 1996, several new herbicide ingredients have become available that would help: 1) increase efficiency and reduce nursery production costs; 2) increase the diversity of plant products; 3) reduce risk of herbicide use and 4) reduce the number of herbicide applications and volume of active ingredients applied.

The herbicides that are currently approved are not always effective on plants that compete with the nursery crops. Herbicide resistance is a concern because a minimal variety of herbicides are currently approved for use.

The nursery does not use cover crops because currently no NEPA approval exists for herbicides that would effectively or economically control weed populations in these plantings. A limited number of pre-emergent herbicides are currently approved. This decreases the effectiveness of weed control in existing and new crop species and increases the risk of herbicide resistance developing in local weed species. If additional herbicides were available, the nursery could economically diversify the selection of crops produced, improve soil health through the use of cover crops, and reduce the number of acres fumigated annually.

#### **Background and Current Situation**

Currently, the following herbicides approved in these documents are in use:

<b>Pesticide Type/Name</b>	<b>Use</b>	<b>Concerns</b>
Dicamba	Pre and post-emergent weed control in established grass beds.	Limited effectiveness/Toxicity
Glyphosate	Post-emergent weed control in all non-crop areas.	Herbicide resistance, non-selective
Simazine	Post-emergent weed control in all non-crop areas.	Herbicide resistance, limited applicable uses
Oxyfluorfen	Pre-emergent weed control in conifer seedling beds and grass beds	Herbicide resistance

The No Action alternative would continue the use of these herbicides according to the previous NEPA decisions. The nursery uses other pesticides (insecticides, algaecides, fungicides, and fumigants) in its operations and site maintenance. However, the scope of the current project is limited to consideration of new herbicides.

### **Proposed Action**

We propose to drop use of dicamba and simazine and continue to use glyphosate and oxyfluorfen where needed. In addition, we propose to use the following herbicides:

- Oryzalin (A selective pre-emergence surface-applied herbicide used for control of annual grasses and broadleaf weeds)
- 2,4-D (A common systemic pesticide/herbicide used in the control of broadleaf weeds)
- Pendimethalin (Used in pre-emergence and post-emergence applications to control annual grasses and certain broadleaf weeds)
- Clopyralid (A highly translocated post-emergence herbicide that controls certain broadleaf weeds)
- Prodiamine (A pre-emergent herbicide for control of grasses and broadleaf weeds)
- Imazapic (A post-emergent herbicide for the control of some broadleaf species and grasses).

The Forest Service proposes to use these herbicides as a part of integrated weed management and in a manner consistent with the labels. The lowest effective rate of herbicide would be used, in combination with manual, mechanical, biological and cultural treatments. All the currently-used and newly-considered herbicides are EPA-registered products commonly used in agriculture and the nursery trade. All are commercially-available for the general public or state-licensed pesticide applicators.

Forest Service policies guiding pesticide use are outlined in Forest Service Manual 2150. Specific objectives for using a variety of herbicides at the JH Stone Nursery include:

- Increase treatment effectiveness and decrease cost of pesticide use
- Increase nursery production
- Reduce the risk developing herbicide resistance
- Provide the ability to use cover crops to improve soil organic matter between crops
- Remove noxious weed populations from the nursery grounds
- Increase potential to certify plant materials as weed-free
- Reduce the use of soil fumigation
- Efficiently grow a greater diversity of crops.
- Increase grass seed production acreage
- Decrease grass seed production cost
- Decrease risks to worker and public health and safety
- Reduce potential for adverse environmental impacts
- Reduce the number of pesticide applications required each year